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Title	Description of a new species of the genus <i>Pseudhomalopoda</i> Cirault from Japan, with a list of the known species and their hosts of the <i>Habrolepis</i> -like genera (Hymenoptera : Encyrtidae)
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DESCRIPTION OF A NEW SPECIES OF THE
GENUS *PSEUDHOMALOPODA* GIRAULT FROM JAPAN,
WITH A LIST OF THE KNOWN SPECIES AND THEIR
HOSTS OF THE *HABROLEPIS*-LIKE GENERA

(Hymenoptera: Encyrtidae)

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Pseudhomalopoda established by GIRAULT in 1915 has been represented only by the typical species, *P. prima* for a long time. As late as 1946 the second species, *P. guamensis* was described by FULLAWAY.

Recently I happened to collect two encyrtid females having peculiar antennae and remarkable wing pattern at Matsuyama, Shikoku, Japan. After careful examination of the specimens, I came to the conclusion that the species must be placed in *Pseudhomalopoda* for the time being, although not at all in agreement with the antennal diagnosis "the funicle joints all much wider than long" given in the original description of the genus.^{1,2)}

On this opportunity, I should like to give a list of the known species and their hosts of the *Habrolepis*-like genera, viz. *Adelencyrtus*, *Anabrolepis*, *Habrolepis*, *Homalopoda*, *Parahomalopoda*, *Plagiomerus*, and *Pseudhomalopoda*.

It is my pleasure to put on record the kindness of Dr. KEIZO YASUMATSU for his constant guidance rendered in the course of the present work and to Drs. RYOICHI TAKAHASHI, TAMOTSU ISHIHARA and Mr. TERUNOBU HIDAKA for their kindness in many ways.

Pseudhomalopoda shikokuensis sp. nov.

Female. *Coloration*.—Frontovertex, pronotum, and mesoscutum bright metallic bluish green. Scutellum dark aeneous, except the sides which are bluish. Axillae, tegulae, and metanotum black; mesopleura black with slightly bluish reflection. Abdomen mostly shining, dark metallic with violaceous reflection. Lamelliform setae on frontovertex and at apex of scutellum black. Face with aeneous reflection; cheeks with metallic green reflection. Antennal scape and pedicel black, the first two funicle joints and the basal club joint brownish black; the remainder of antennae brownish yellow. Legs black except the following parts which are brownish yellow: all tarsi (except distal joints), the basal ends of fore and middle femora, the tip of fore tibiae, the apical two-thirds of middle

1) GIRAULT, A. A. (1915) Jour. N. Y. Ent. Soc., 23: 171.

2) TIMBERLAKE, P. H. (1920) Proc. Hawaii. Ent. Soc., 4 (2): 433.

tibiae, the tip of hind tibiae, and spurs. Ovipositor black. Forewings-pattern closely allied to those of *Anabrolepis zetterstedtii* (WESTWOOD) and *Anabrolepis japonica* ISHII as shown in the figure.

Sculpture.—Frontoververtex finely shagreened, face and cheeks closely lineolate, pronotum and mesoscutum scaly reticulate, scutellum delicately reticulate but the sides of scutellum polished, and abdomen too smooth and shining to recognize the sculpture of fine reticulation.

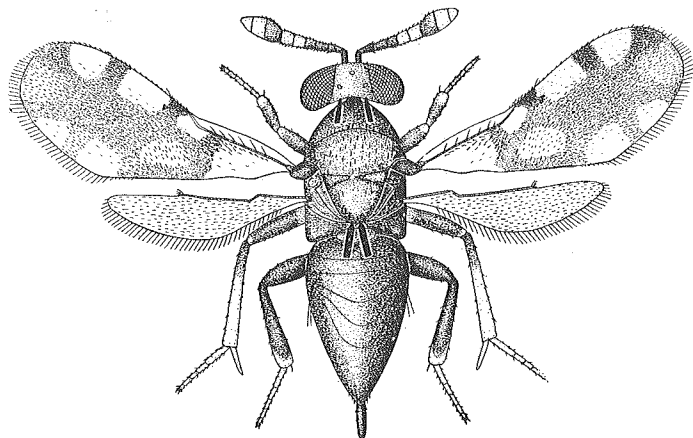


Fig. 1. *Pseudhomalopoda shikokuensis* sp. nov., ♀.

Structure.—Head transverse, seen from above lenticular, 2.7 times as wide as the length of frontoververtex; head, seen in profile, triangular with the retracted face and occipital margin forming the long sides and frontoververtex the short side; frontoververtex about as wide as long; ocelli in an obtuse-angled triangle, lateral ocelli separated from the eye margins by about half the diameter of one ocellus and from the occipital margin by about twice the diameter of one ocellus; face widens considerably below eyes, the upper part of the face is deeply excavated to form the scrobes; antennae inserted on a line drawn between the lower corners of eyes. Antennal scape dilated towards the apex; pedicel one third as long as scape (inclusive of the radicle); funicle consists of four joints, gradually widening distad, and as long as club, and slightly shorter than scape (inclusive of the radicle), the first funicle joint apparently longer than wide, the remainder of funicle joints subquadrate; club somewhat flattened and apically pointed, the apical joint shorter than the other two. Thorax depressed; pronotum transverse and crescentic, mesoscutum about twice as wide as long, scutellum wider than long; the length of forewings 2.8 times the greatest width, submarginal vein with nine stout bristles. Abdomen about as long as head and thorax taken together, ovipositor projecting behind about one fifth the abdominal length.

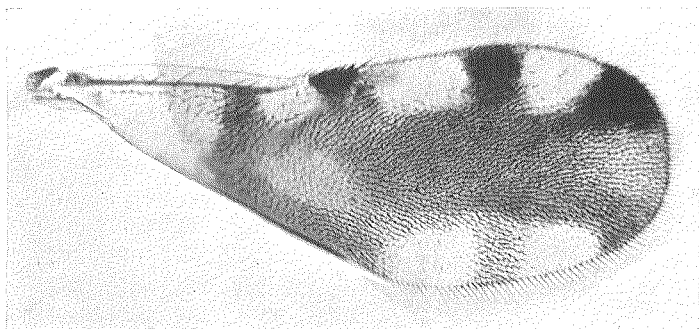


Fig. 2. Forewing of *Pseudhomalopoda shikokuensis* sp. nov., ♀.

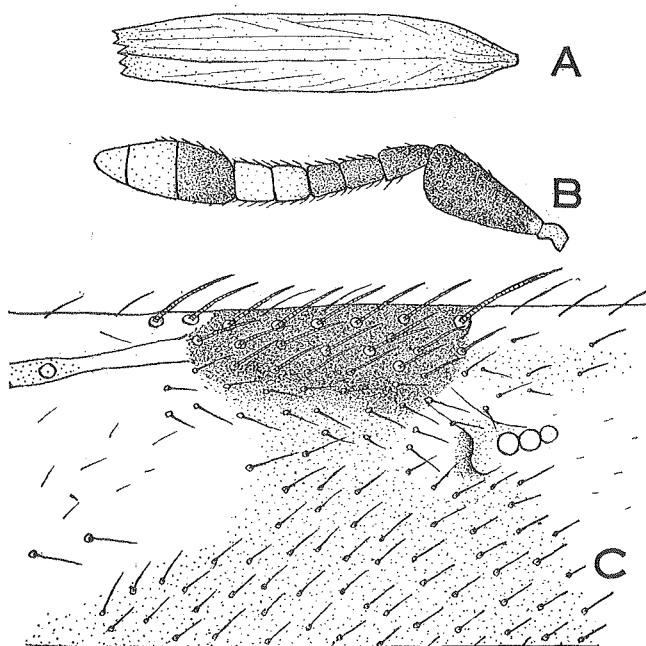


Fig. 3. *Pseudhomalopoda shikokuensis* sp. nov., ♀.

A. Lamelliform seta at the apex of the scutellum.

B. Antenna.

C. Detailed venation of the forewing.

Measurements.—Length of body 1.3 mm, width of body 0.4 mm.

Male. Unknown.

Host. Unknown.

Holotype, ♀, Matsuyama, Shikoku, 14. VI. 1955, T. TACHIKAWA leg.; paratopotype, 1 ♀, in the collection of the Entomological Laboratory, College of Agriculture, Ehime University.

This species is somewhat related to *Pseudhomalopoda guamensis* FULLAWAY, but may be easily distinguished from it by the proportional lengths of the funicle joints and the pattern of the forewings.

A LIST OF THE KNOWN SPECIES AND THEIR HOSTS OF THE *HABROLEPIS*-LIKE GENERA

Genus *Adelencyrtus* ASHMEAD, 1900

(syn. *Epiencyrtoides* GIRAULT, 1915)

Orthotype: *Encyrtus chionaspidis* HOWARD, 1896

[Species]	[Hosts]	[Localities]
<i>aulacaspidis</i> (BRÈTHES, 1914, olim <i>Prionomitus</i>) (syn. <i>Habrolepis mayri</i> RUSCHKA et FULMEK, 1915)	<i>Aulacaspis rosae</i> (BOUCHÉ)	Balearic Is.; Chile; Argentina; U. S. A.; Spain; Austria; Russia (Caucasus)
<i>axillaris</i> (GIRAULT, 1915, olim <i>Epiencyrtoides</i>)	Unknown	Queensland
<i>chionaspidis</i> (HOWARD, 1896, olim <i>Encyrtus</i>)	<i>Chionaspis graminis</i> (GREEN) <i>Pulvinaria psidii</i> (MASKELL)	Ceylon India
<i>odonaspidis</i> FULLAWAY, 1913	<i>Odonaspis ruthae</i> KOTINSKY	Hawaii
<i>planchonia</i> (HOWARD, 1896, olim <i>Encyrtus</i>)	<i>Asterolecanium</i> (= <i>Planchonia</i>) <i>delicata</i> GREEN	Ceylon
<i>quadridentatus</i> (GIRAULT, 1915, olim <i>Epiencyrtoides</i>)	Unknown	Queensland
<i>simmondsi</i> COMPERE, 1947	<i>Coccus hesperidum</i> LINNÉ	S. Australia
<i>solidus</i> (HOWARD, 1896, olim <i>Encyrtus</i>)	<i>Eriococcus rhodomyrti</i> GREEN	Ceylon
<i>Subapterus</i> (KURDJUMOV, 1912, olim <i>Encyrtus</i>)	<i>Eriococcus greeni</i> NEWSTEAD	Russia

Genus *Anabrolepis* TIMBERLAKE, 1920Orthotype: *Anabrolepis extranea* TIMBERLAKE, 1920

[Species]	[Hosts]	[Localities]
<i>bifasciata</i> ISHII, 1923	<i>Ceroplastes rubens</i> MASKELL	Japan
	<i>Pseudaonidia duplex</i> COCKERELL	Japan
<i>extranea</i> TIMBERLAKE, 1920	<i>Ceroplastes rubens</i> MASKELL	Japan
	<i>Pseudaonidia duplex</i> COCKERELL	Japan
	<i>Pseudaonidia paeoniae</i> COCKERELL	Japan
<i>diaspidi</i> RISBEC, 1951	<i>Diaspis senegalensis</i> VAYSSIÉRE	Senegal
<i>japonica</i> ISHII, 1923	? <i>Eriococcus onukii</i> KUWANA	Japan
	<i>Odonaspis bambusarum</i> (COCKERELL)	Japan
<i>oceanica</i> DOUTT, 1951	<i>Furcaspis oceanica</i> LINDINGER	Palau and Caroline Is.
<i>zetterstedtii</i> (WESTWOOD, 1937, olim <i>Encyrtus</i>)	<i>Aspidiotus ostreaeformis</i> CURTIS	U. S. A.; England; France; Germany; Russia
	<i>Aspidiotus perniciosus</i> COMSTOCK	U. S. A.
	<i>Chionaspis salicis</i> LINNÉ	Germany
	<i>Dynaspidotus bavaricus</i> (LINDINGER)	Germany
	<i>Lecanium coryli</i> LINNÉ (= <i>Coccus tiliae</i> L.)	Spain
	<i>Lepidosaphes ulmi</i> (LINNÉ)	U. S. A.; Tunisia; Hungaria; Germany
	<i>Lepidosaphes ulmi</i> <i>bisexualis</i> THIEM	Germany
sp.	<i>Aonidiella aurantii</i> MASKELL	China
	<i>Aspidiotus ostreaeformis</i> CURTIS	Italy

Genus *Habrolepis* FOERSTER, 1856

Orthotype: (*Encyrtus nubilipennis* WALKER, 1837)
= *Encyrtus dalmani* WESTWOOD, 1837

[Species]	[Hosts]	[Localities]
<i>aeruginosa</i> MASI, 1917	Unknown	Seychelles
<i>apicalis</i> WATERSTON, 1917	<i>Pinnaspis strachani</i> COO- LEY (= <i>Pinnaspis tem- poraria</i> FERRIS = <i>Chio- naspis minor</i> MASKELL)	Gold Coast
<i>dalmani</i> (WESTWOOD, 1837, olim <i>Encyrtus</i>) (syn. <i>Encyrtus nubili- pennis</i> WALKER, 1837)	<i>Aspidiotus ostreaeformis</i> CURTIS <i>Aspidiotus</i> sp. <i>Asterolecanium ilicicola</i> TARGIONI <i>Asterolecanium querciola</i> (BOUCHÉ) <i>Asterolecanium vari- olosum</i> (RATZEBURG) <i>Lepidosaphes ulmi</i> (LINNÉ) <i>Pseudococcus</i> sp. <i>Quadraspidotus</i> (= <i>Aspidi- otus</i>) <i>pyri</i> LICHTENSTEIN <i>Targionia vitis</i> SIGNORET	Italy Spain Algeria U. S. A. ; Austria ; England ; Germany ; France U. S. A. ; England ; Germany ; Italy ; Austria ; Australia ; Tasmania (introduced); New Zealand (intro- duced) U. S. A. Europe ; U. S. A. ; New Zealand Germany France
<i>guineensis</i> FERRIÈRE, 1953	<i>Pseudaonidia pavettae</i> BALACHOWSKY	French Guinea
<i>oppugnati</i> SILVESTRI, 1914	<i>Aspidiotus oppugnatus</i> LEONARDI	Eritrea
<i>pascuorum</i> MERCET, 1921	<i>Asterolecanium variolos- um</i> (RATZEBURG) <i>Chrysomphalus dictyo- spermi</i> (MORGAN) <i>Parlatoria oleae</i> (COLVÉE) Unknown	Russia (Crimea; Central Asia) Russia (Ibid.) ; Sicily Russia (Ibid.) Spain
<i>rouxi</i> COMPERE, 1936	<i>Aonidiella aurantii</i> (MASKELL)	Transvaal ; U. S. A. (introduced from Transvaal)
sp.	<i>Chionaspis</i> sp. <i>Planococcus citri</i> (RISSO)	Natal Russia

Genus *Homalopoda* HOWARD, 1894Haplotype: *Homalopoda cristata* HOWARD, 1894

[Species]	[Hosts]	[Localities]
<i>cristata</i> HOWARD, 1894	<i>Ceroplastes giganteus</i> DOZIER	Haiti
	<i>Odonaspis</i> (= <i>Aspidiotus</i>) <i>secreta</i> (COCKERELL)	Ceylon

Genus *Parahomalopoda* GIRAULT, 1915Orthotype: *Parahomalopoda peruviansis* GIRAULT, 1915

[Species]	[Host]	[Locality]
<i>peruviansis</i> GIRAULT, 1915	Unknown	Peru

Genus *Plagiomerus* CRAWFORD, 1910Orthotype: *Plagiomerus diaspidis* CRAWFORD, 1910

[Species]	[Hosts]	[Localities]
<i>cyaneus</i> (ASHMEAD, 1888, olim <i>Comys</i>)	<i>Aleurothrixus howardi</i> QUAINTANCE	Puerto Rico
	<i>Aspidiotus cyanophylli</i> SIGNORET	Puerto Rico
	<i>Ceroplastes cirripedi-</i> <i>formis</i> COMSTOCK	Puerto Rico
	<i>Saissetia oleae</i> BERNARD	Cuba
<i>diaspidis</i> CRAWFORD, 1910	<i>Diaspidis echinocacti</i> (BOUCHÉ)	U. S. A. ; Italy
<i>hospes</i> TIMBERLAKE, 1920	Unknown ("presumably Diaspine scale")	Hawaii

Genus *Pseudhomalopoda* GIRAULT, 1915Orthotype: *Pseudhomalopoda prima* GIRAULT, 1915

[Species]	[Hosts]	[Localities]
<i>guamensis</i> FULLAWAY, 1946	Unknown	Guam Is.
<i>prima</i> GIRAULT, 1915	<i>Aleurocanthus woglumi</i> ASHBY	Jamaica ; U. S. A.
	<i>Aonidiella aurantii</i> (MASKELL)	U. S. A.
	<i>Aspidiotus destructor</i> SIGNORET	Haiti
	<i>Chrysomphalus ficus</i> ASH- MEAD (= <i>C. aonidium</i> L.)	Jamaica ; Haiti ; San Domingo ; U. S. A.
	<i>Saissetia oleae</i> BERNARD	Haiti
<i>shikokuensis</i> TACHIKAWA, 1956	Unknown	Japan